

REMARKS

This communication is being filed in response to the Office Action having a mailing date of December 23, 2008. Claims 1, 3, 5, and 6 have been amended. New claims 8-19 have been added, and claims 2 and 7 have been cancelled. With this amendment, claims 1, 3-6, and 8-19 are pending in the application.

**Rejection of Claim 1 Under 35 U.S.C. § 112**

The Examiner rejected claim 1 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has been amended to clarify claim language, as requested by the Examiner, and now recites “a plurality of prefabricated, flexurally stiff components that are integrated with the bearing structure.” It is respectfully requested that the rejection to claim 1 be withdrawn.

**Rejections of Claim 2 Under 35 U.S.C. § 101 and 35 U.S.C. § 112**

The Examiner rejected claim 2 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner further rejected claim 2 under 35 U.S.C. § 101. Claim 2 has been cancelled rendering these rejections moot.

**Rejections of Claims 1 and 3-7 Under 35 U.S.C. § 102**

The Examiner rejected claims 1 and 3-7 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,127,802 to Carlson *et al.* (“Carlson”). These rejections are respectfully traversed for at least the following reasons.

*Claim 1*

Carlson does not disclose the limitations recited in independent claim 1. For example, amended claim 1 recites, among other things, a bearing structure proximate to an outer surface of the rotor blade. In contrast, Carlson discloses a spar 30 that is inside of a cavity defined by a planform 11. Col. 3, lines 45-48. As shown in Figures 1-3b, the spar cited by the

Examiner is at the middle of the rotor blade 10 and, thus, is not proximate to an outer surface of the rotor blade 10.

Applicant's Claim 1 further recites a wind power installation comprising a wind turbine configured to generate energy. In contrast, Carlson discloses an aircraft propeller with an engine that rotates the propeller rotor blades for propulsion. Col. 2, lines 40-46; col. 3, lines 14-26. Aircraft engines use significant amounts of energy to rotate the rotor blades in order to provide thrust-bearing capabilities needed during flight. See, *e.g.*, col. 3, lines 19-24. Carlson simply fails to disclose wind turbines configured to generate energy.

Additionally, the Carlson blades are aircraft rotor blades, not rotor blades of a wind turbine. Carlson discloses that aircraft rotor blades are specifically designed for generating high thrust during flight (*e.g.*, while climbing, descending, cruising, or landing) and for operating at high operational speeds of 800 rpm to 1200 rpm. Col. 1, lines 46-49; col. 5, lines 58-62. The rotor blades of Carlson rotate at high angular speeds with tip speeds often into and beyond the transonic speed range. Col. 1, lines 20-23. One of ordinary skill in the art would appreciate that Carlson's aircraft rotor blades for generating high thrust at high operational speeds are not wind turbine rotor blades. The difference is significant in structure and operation. In a propeller blade for an aircraft, the power comes from a drive shaft that is moved by an engine. A drive force is applied to a root of the propeller blade connected to the drive shaft. The Carlson spar 30 is inside the rotor blade 10 and has an exposed end 33, as shown in Figure 1 of Carlson. The wind turbine works the opposite and is structure the opposite in the wind turbine blade. Applicant's application discloses that the bearing members 14 and 16 are on the exposed outer surface. The force to turn a wind turbine comes from wind outside of the blade. The wind produces an externally applied force by pushing the blade. Accordingly, the bearing structure is proximate to the exposed outer surface, as now stated in amended claim 1. Carlson simply fails to disclose a wind turbine configured to generate energy and including a rotor blade.

Applicant notes that the Office Action simply points to Carlson's graphite fibers 36 without addressing Applicant's limitation directed to a hardened composite material. Carlson fails to disclose impregnating the fibers 36, much less impregnating with a hardening composite material. Consequently, the rejection of claim 1 should be withdrawn.

*Claims 3-6*

Carlson does not disclose the limitations recited in independent claim 3. For example, amended claim 3 recites, among other things, that the fiber strands are impregnated with a hardening composite material. In contrast, Carlson discloses fibers 36 made of graphite. Carlson fails to disclose impregnating the fibers 36, much less impregnating with a hardening composite material. The Office Action simply points to the Carlson graphite fibers 36 without addressing Applicant's limitation directed to the fiber strands being impregnated with the hardening composite material.

Applicant's claim 3 further recites producing wind installation rotor blade shells forming an outer contour of a shaped body. In contrast, cited rotor blades of Carlson are for an axial flow rotary machine/engine, not a wind installation. Col. 3, lines 42-53. Carlson discloses the importance of rotating the blades at high rotational speeds to generate high thrust for flight. The difference is significant in structure and operation, as noted in detail above. One of ordinary skill in the art would recognize that the axial flow high-speed rotor blades of Carlson do not include wind installation rotor blade shells.

Applicant notes that the Office Action fails to address Applicant's invention in as complete detail as claimed, points to features of Carlson that do not meet the Applicant's claimed limitations, and broadly proposes that Applicant's claimed process for production is inherent based on Carlson's structures. It is well established that to "establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is **necessarily** present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities.'" *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted); M.P.E.P. § 2112 (IV). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. § 2131. As noted above, Carlson fails to disclose producing a bearing structure of fiber strands impregnated with a hardening composite material. Carlson merely discloses a spar 30 with graphite fibers 36, and thus, Applicant's limitations of claim 3 are not disclosed or suggested by Carlson.

Moreover, one of ordinary skill in the art would readily recognize that a wide range of conventional techniques can be used to manufacture the Carlson spars 30 and its components. Conventional non-impregnating techniques for producing graphite fibers often involve selecting a precursor, selecting a spinning/stretching/stabilization process to produce a filament, and selecting a thermal process to thermally oxidize the filament. The number of different types of conventional non-impregnating techniques for producing graphite fibers, as well as number of techniques for incorporating those fibers in a spar, provides a number of possible ways of manufacturing the Carlson structures that do not include the Applicant's limitations of claim 3. The limitations of claim 3 are not necessarily present in Carlson and therefore not inherent in the teachings of Carlson. Consequently, claim 3 is in condition for allowance.

Dependent claims 4-6 depend from independent claim 3 and are allowable as depending from an allowable base claim, as well as for novel and non-obvious combinations of elements recited therein.

### **New Claims**

Claims 8-19 have been added. These claims are fully supported by the application as filed and are not disclosed in Carlson. No new matter has been added by this amendment. Consideration of new claims 8-19 is respectfully requested.

### **Conclusion**

Any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Any remarks referring to only a portion of a claim should not be understood to base patentability on solely that portion; rather, patentability must rest on each claim taken as a whole. Applicant does not acquiesce to each of the Examiner's rejections and does not acquiesce to each of the Examiner's assertions regarding what Carlson shows, teaches, or suggests, even if not expressly discussed herein. Although changes to the claims have been made, no acquiescence or estoppel is or should be implied thereby; such amendments are made only to expedite prosecution of the present application and

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to place the claims in better form for examination and are without prejudice to the presentation or assertion, in the future, of claims relating to the same or similar subject matter.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090. All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,  
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